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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,672	11/21/2003	Alexandre Corjon	245497US41X CONT	9066
22850	7590	12/08/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			HOLZEN, STEPHEN A	
			ART UNIT	PAPER NUMBER

3644

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/717,672

Applicant(s)

CORJON ET AL.

Examiner

Stephen A. Holzen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/23/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Lessen (3,881,669). Lessen discloses an apparatus having a perturbation device (Figure 2), configured to generate a periodic perturbation having a wavelength capable of exciting at least one instability mode of the first eddy (see Figures 1 and 2, where device is inherently capable as performing as claimed)

Re – Claim 2: wherein the device is adjacent a flap of the aircraft (see Figure 1)

Re – Claim 3: wherein the device comprises an unstreamed element (inherent that the duct is unstreamed)

Re – Claim 4: wherein the element has a cylindrical cross section (#26, duct is cylindrical)

Re – Claim 5: wherein the element has a circular cross section (#26, duct is circular)

Re – Claim 6: wherein the unstreamed element comprises an elliptical cross section (the duct exit is elliptical)

Re – Claim 7: wherein the unstreamed element is configured to be extended from a retracted into one of the wing and the flap of the aircraft (see Figure 4).

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Re – Claim 8: wherein the device comprises a fluid jet (#26 and #30)

Re – Claim 9: wherein the fluid jet is disposed in the wing (see Figure 3)

3. Claims 10-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Lessen (3,881,669). Lessen discloses a device having means for generating a periodic perturbation having a wavelength capable of exciting the instability mode of a first eddy, and is disposed adjacent the area of creation of the first co-rotating eddy (see Figure 1)

Re – Claim 11: wherein the device is adjacent a flap of an aircraft (see Figure 2)

Re – Claim 12: wherein the device is an unstreamed element. (see Figure #34, #36 and/or #38)

Re – Claim 13: wherein the element is configured to be extended from and retracted into the wing (see Figure 4)

Re – Claim 14: wherein the device comprises a fluid jet (#30)

Re – Claim 15: wherein the fluid jet is disposed within the wing (see Figure 3).

4. Claims 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Lessen (3,881,669). Lessen discloses in Figure 1 an apparatus for accelerating the destruction of vortices formed near the wings of an aircraft having a first perturbation device disposed adjacent an end of the first flap of the first wing, a second device adjacent to a second flap of the second wing, wherein the first and second devices are configured to generate periodic perturbations having wavelengths capable of exciting instability modes of the eddies. (Note that no patentable weight has been given to the

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recitation: "such that diameters...the first and second vortices" because it is exemplarily and functional in nature.)

Re – Claim 17: Figure 1 to less discloses an apparatus having a first and second perturbation devices are configured to generate periodic perturbations having wavelengths capable of exciting instability modes of the first and third eddies. (Note that no patentable weight has been given to the recitation: "such that diameters...the first and second vortices" because it is exemplarily and functional in nature.)

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

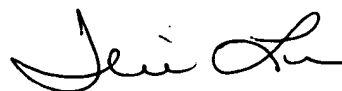
- Williams (3,756,540) reads on claims 1, 8 and 9 (see Figures 1 and 4)
- Haworth (4,377,267) reads on claims 1-6, 10-13 and 16-17 (see Figure 1)
- Glezer et al (6,644,598) reads on claims 1-3, 7-17 (see Figures and Col. 10, lines 42-56)
- Rao (5,255,881) discloses liquid jets that are housed within the wing
- Patterson, Jr. (3,984,070) discloses a perturbation device (#36, #54, and #38) comprising an unstreamed element (#54) having elliptical cross sections.
- Milhora et al (5,651, 516) reads on claims 1-6 (see abstract, background and figure 1)
- Thompson (4,323,209) reads on claims 1-6, 10-13 and 16 & 17 (see Figures 1 and 4, and abstract)
- T. W. Zobel (2,562,227) reads on claims 1, 2, 8, 9, 10, 14, 15 (see #66)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen A. Holzen whose telephone number is 703-308-2484. The examiner can normally be reached on M-F 7:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 703 305-7421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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**TERI PHAM LUU**  
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**PRIMARY EXAMINER**